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EWING GALLOWAY

ON FIESTA DAY, LITTLE MEXICANS PLAY "GROWN-UP" AS THEY DRESS AND BURDEN THEMSELVES LIKE THEIR PEON PARENTS

The ever-present serape half covers the child at the right. The girl is a tiny facsimile of her holiday-attired mother. In further emulation of their workaday elders, who enjoy fiestas but try to make them pay, the boys carry extra sombreros for sale; the girl offers a basket of flowers. Chest bands on the boys support crates containing pottery and live poultry (page 3).

Mexico's Capital Plays Host to Truman

"CITY of Palaces" . . . "oldest metropolis in America" . . . "site of melodramatic history." Such descriptive phrases hint at the life and background of the colorful Mexican capital where Mr. Truman's projected visit marks the first such call by a United States president.

Behind the modern front of Mexico, D. F. (Distrito Federal), with its imposing buildings and its 1,500,000 people, lies an eventful story of more than 600 years. Tenochtitlán, the glittering center of Aztec civilization which once stood on the same spot, was an old settlement when Cortés first saw it in 1519. To the Spanish conquistador and his men, it was "the fairest city in the world," an amazing conglomeration of massive stone buildings and shrines, gardens, canals, and causeways.

Cathedral Built on Site of Pagan Temples

Many of the historic show places of Mexico City were built on top of, and partly out of, the ruins of the Aztec city which the Spaniards destroyed during the bitter struggle for possession.

In the busy heart of the present-day capital, the Plaza de la Constitución, or Zócalo, occupies the former site of the great central enclosure of the Aztecs. Where sacrificial pagan temples and the sumptuous palaces of Montezuma rose, Spanish-colonial architects built the Cathedral (Mexico's first Christian church), the National Palace, once official residence of the viceroys, and other state buildings.

To thousands of annual visitors and students, Mexico City offers a varied panorama. The hub of the nation's government, social, and business life, it has many foreign quarters, with world-wide samplings of dress (illustration, cover), cookery, and politics. Along with early colonial churches, old mansions, and narrow cobblestone streets, the capital has its share of radio loud-speakers, traffic jams, night clubs, modern schools, newspapers, and magazines.

Chapultepec Castle Mirrors Mexico's History

Before the window of an ultra-modern bookstore, an Indian peon in broad sombrero and serape may stand beside a matron dressed in the latest New York or Paris style. Now and then a heavy-laden burro taps along a broad avenue, lined with parked automobiles. Small shops displaying costly wares, and big department stores stand near "hole-in-the-wall" silversmiths, and both compete with curbstone peddlers selling bright arrays of flowers, toys, and souvenirs.

The city has its movies, golf courses, and bullfights. For the sightseers there is a choice of museums, zoos, markets, and modern or classical art galleries. A popular trip is to Chapultepec Castle, now a museum with public picnic grounds, which in its time has been linked with the Aztec emperors, the Spanish viceroys, the ill-fated imperial adventure of Maximilian, and the 1945 inter-American conference.

Other out-of-town excursions take in the famous floating gardens of Xochimilco (illustration, page 4), the ancient, mysterious pyramids at

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A. ANTHONY STEWART

IN AYR, HOME OF ROBERT BURNS, THE INN WHERE TAM O' SHANTER "BOUSED" STILL STANDS

With Souter Johnnie, "his ancient, trusty, drouthy crony," Tam often became "fou and unco happy." From this alehouse he departed on his imaginary, ghostly ride—a tale lustily told in dialect by Scotland's plowman bard (page 5). The inn is getting a new thatch roof of oat straw.

Self-Reliant Scotland Plans New Industries

SCOTLAND, land of heather, kilts, bagpipes (illustration, page 6), and shipyards, has recently finished the first leg of a five-year plan designed to give the country's economy a boost. In typically independent and thrifty fashion, the Scots are borrowing no money to finance the plan, but are "making-do" on the resources they have.

During the last century Scotland's prosperity, or lack of it, has depended largely on the industrial belt of the Lowlands—mostly around Glasgow—where iron and coal deposits fed factories and shipyards and made one of the busiest heavy-industry areas in Europe. Before the war, when one-fourth to one-third of Scotland's population was dependent on these heavy industries, the mineral deposits began to be depleted.

Not Merely a Northern Extension of England

Now other natural resources, heretofore comparatively overlooked, are being developed. Swift rivers pouring through glens from the Highlands to the sea will be harnessed for almost unlimited power. Forests are to be replanted to form the basis for a wood-pulp industry. And finally, Scotland's scenery, renowned in literature, will be exploited as never before to build up a travel trade.

Despite similarities, Scotland is not merely a northerly extension of England. The boundary along the Tweed River and the Cheviot Hills, though unmarked by sentries and customs stations, is a true border. Much blood was shed to establish it. The Scottish descendants of those "wha hae wi' Wallace bled" or who died beside Bruce in the wars against England are still conscious of their distinctive nationality.

About the size of Maine, mountainous, lake-dotted, sea-indented Scotland has an area of more than 30,000 square miles and a population of about 5,000,000. These figures include the outlying island groups of the Orkneys, Shetlands, and Hebrides. Scattered over the world are many times more Scottish people than now reside in the homeland.

Canals Connect Coasts

The country is divided into three general geographic areas. The Highlands, north and west of a line drawn from the north bank of the Clyde River (near Glasgow) to Aberdeen (on the North Sea), make up two-thirds of the country. To the south lie the Lowlands, where most of the population is concentrated (over a million in Glasgow and nearly half a million in Edinburgh). Between the Lowlands and the English border rise the Southern Uplands, a moor-mountain region not as wild nor as high in elevation as the Highlands.

The highest point in Scotland and in the British Isles is Ben Nevis, north of Glasgow. Its 4,406-foot peak is often hidden in clouds or mist. At its foot is the long trough of Glen More, through which the Caledonian Canal connects the Atlantic and the North Sea. A more important waterway is the Forth and Clyde Canal, joining the Clyde with the Firth of Forth near Edinburgh.

Edinburgh, whose Princes Street and Castle Rock and University are prided by Scots the world over, is the capital. The Scottish nationalist

UMI

San Juan Teotihuacán, and the ascension of Popocatepetl—from whose lofty crater Cortés's men took sulphur for gunpowder.

Situated high in the inland Valley of Mexico, the capital is rimmed by protective mountains, and favored by a stimulating climate. Geography, however, has played it a curious trick. Although nearly 7,500 feet above sea level, the city lies in a once-lake-covered depression which made dikes and drainage as essential as in a Netherlands seaport.

The canals now have been filled in, and surface floods are prevented by engineering works. But below the surface the swampy soil is gradually sinking, requiring constant repair and strengthening of the big buildings, and bringing predictions that the capital city will be swallowed up in time, if protective measures are not taken.

NOTE: Mexico City is shown on the National Geographic Society's map of Mexico, Central America, and the West Indies. Write the Society's headquarters, Washington 6, D. C., for a price list of maps.

For additional information, see "From the Halls of Montezuma" (21 colored photographs), in the *National Geographic Magazine* for February, 1944*; "On the Cortés Trail," September, 1940*; "In the Empire of the Aztecs," June, 1937; "Travels with a Donkey in Mexico," December, 1934; and "North America's Oldest Metropolis," July, 1930. (*Issues marked with an asterisk are included in a list of Magazines available to teachers in packets of ten for $1.00.*)

See also, in the GEOGRAPHIC SCHOOL BULLETINS, January 6, 1947, "Cortés's Long-Lost Casket Comes to Light"; and "Chapultepec, Conference Site, Dominates Mexican Capital," March 19, 1945.

BRANSON DE COU FROM GALLLOWAY

LINED BY EUCALYPTUS, THE CANAL DE LA VIGA CARRIES FLOWER-BEDECKED "GONDOLAS" BETWEEN MEXICO CITY AND THE FLOATING GARDENS OF XOCHIMILCO

Lassen Volcanic, Land of Lava and Lakes

NATURE on a rampage is the dominant note of Lassen Volcanic National Park, a section of northern California so wild that man has not conquered it. Across one corner went the Old Emigrant Trail, over which passed early pioneers without tarrying in their westward migrations. More recent settlers also avoided the lava-scarred area 125 miles north of Sacramento.

The National Park Service plans to retain the park in its wild state, without any developments that would detract from its natural ruggedness except for the building of roads and trails to make more accessible its many fascinating vistas.

Volcanic Activity Still Noted in the Area

The park is unique in having the last volcano to erupt within the borders of the United States proper, 1914 to 1921. While it now is quiescent, Lassen Volcano (illustration, page 8) is still classified as a "live," or recently active, volcano.

The fact that it is merely dormant, and not dead, is evident in the surrounding area. Sulphur, soda, and other hot springs bubble. Fumaroles, geysers, and mud pots spout. Ill-smelling fountains and boiling pools are found near lakes and lava flows.

Roughly rectangular, the park covers 163 square miles in all. In its area are three dozen small lakes, and two dozen mountain peaks of volcanic origin. Most of the mountains are forested to the timber line.

The peaks average more than 8,000 feet, and are crowned by Lassen Peak, whose 10,453-foot summit marks the southern end of the spectacular Cascade Range. Some geologists believe truncated Lassen Peak once reached to a height of 16,500 feet or more, and that the summit was blown off by a tremendous explosion.

It was doubtless during the ages of the higher mountain that glaciers developed. There are no glaciers in the park now, but in various sections the rocks bear the deep corrugated markings of glacial flow.

A Flood of Mud

In addition to its wild scenery, its steep cliffs, and snow-capped peaks, the park has waterfalls, and a great tunnel through the lava in Hat Creek Valley. This was formed by the cooling of the West Prospect Flow on the outside, while the molten lava within flowed out.

No river crosses this lofty no man's land, and the creeks draining the park are small, occasionally in flood. One result of the last eruption was a flood down a creek bed of mud made of lava ash. The flow was ten to fifteen feet high, and carried great rocks and forest trees before it.

The lakes and streams are well stocked with fish, mostly rainbow trout. Loch Leven, eastern brook, black spotted, and German brown trout also are plentiful in some waters. An attempt to stock one lake with catfish proved a failure—the fish remained abnormally small. Juniper Lake,

party thinks it should have more functions of a capital and that there should be less administration of Scotland's affairs in London. Heading the Scotland Office in London is the Secretary of State for Scotland, a member of the British cabinet.

Less than one-sixth of the land is arable, but half of it makes suitable grazing. On the grassy moors many fine breeds of cattle and sheep have been developed. The Clydesdale draft horse also is a Scottish animal. The richest farm regions lie in the Lowlands.

A few Scots still speak Gaelic, the historic tongue of the country. Until about 1700 a distinctive Gaelic literature existed, but after that the English influence was too great. "Rabbie" Burns, Scotland's most famous poet (illustration, page 2), writing in the latter half of the 18th century, penned most of his poems in a Scottish dialect.

For visitors, the "heart" of Scotland is in the Highlands. There are the lochs (lakes) and bens (mountains) whose unusual beauty has been extolled in song and story. There the clannish traditions of kilts and tartans are strongest and most natural. There "braw lads" parade to skirling bagpipes and the strange goose-pimpling music sings of the valorous days of William Wallace and Robert Bruce.

NOTE: Scotland is shown on the Society's Map of the British Isles.

For further information, see "Bonnie Scotland, Postwar Style," in the *National Geographic Magazine* for May, 1946; "Scotland in Wartime," June, 1943; and "Low Road, High Road, Around Dundee," April, 1936.

BERND LOHSE FROM THREE LIONS

PROUDLY THE PIPERS PARADE AS PART OF SCOTLAND'S HIGHLAND GAMES

Every August and September clansmen gather at Balmoral, Inverness, Oban, and Aboyne and let their traditional rivalries flare again. Instead of Macbethlike bloodshed, modern meetings call for contests in piping, dancing, and feats of strength. Clan members, from chieftain to crofter (tenant farmer), are identified by a tartan—a plaid pattern showing on kilts, cloaks, and stockings.

Olive Oil Stages a Postwar Comeback

OF interest to America's housewives is the report that Portugal is substantially increasing its production of olive oil. Through the war years this popular cooking and salad oil was conspicuously absent from grocery shelves as war-isolated Mediterranean countries normally supply the United States with 40,000 tons a year.

Portugal itself provides less than seven per cent of the olive oil and olives imported into the United States. Italy (illustration, page 10) used to supply three times that amount. Spain sends more than any other country. Greece is high on the list. California, largest domestic source, grows 50,000 tons of olives a year.

California's Trees Have Increased 3,000-fold in a Century

California's first olive trees were those brought from Mexico by Franciscan missionaries and planted at their San Diego Mission. The variety known as Mission still holds first place in the favor of California growers. A century ago there were fewer than 500 trees, but the groves have increased until the state now has possibly 1,500,000 trees covering more than 25,000 acres. Spain's large crop comes from groves spread over 5,000,000 acres.

A native of Asia Minor, and possibly of Greece, the olive (*Olea europaea*) spread to Egypt and was cultivated by the ancient Greeks and Romans. As they colonized the lands of the Mediterranean, this useful tree was part of the equipment with which they set up new homes. The fruit could substitute its rich oil for the animal fats and butter eaten by the people of Europe's northern countries.

To the ancient Greeks, the olive was more than a food. Its branch was a symbol of peace, and its slim, gray-green leaves were twined into crowns to adorn victors in athletic contests.

Phoenicians are believed to have introduced the tree into Spain. Peru was the first country in the Western Hemisphere to grow olives. The Spaniards, who invaded the region in 1590, brought the tree from Spain. From Peru, which still has large groves, the olive was taken to Mexico.

Branch Tips Become New Trees

Olive trees are grown chiefly from cuttings in order that the fruit may be produced as quickly as possible. If a whole olive is planted, it may not sprout for two years. Trees are regularly pruned to increase the crop and to keep the trees from growing out of reach. The cuttings resulting from this pruning are used to enlarge the orchards.

In California, trees are pruned in January and February when they are most dormant. The branch tips, which may be four or five inches long, are planted in sand, in greenhouses. They are transplanted into nurseries after they have taken root. There they grow for two or three years before being set out in an orchard.

They are usually planted 24 to 30 feet apart, although the distance varies with the soil. In northern France, 15 feet is the usual space; in southern France, 25 to 30 feet; and in warmer North Africa, where trees

largest in the park, has a shore line of five or six miles. Cluster Lakes are grouped in a bunch. All the park's lakes afford excellent boating and canoeing.

Scenic highways and trails lure motorists, horseback riders, and hikers during three seasons. But Lassen has also become popular with skiers in winter and spring, and even into the summer on the higher slopes. Ski tows, accessories, and rental equipment are provided at the Sulphur Works near the southwest entrance. The Lassen Peak Highway is kept open from late June to mid-October—depending on snow conditions.

Like other national parks, Lassen is a wild-life sanctuary. Black tail and mule tail deer, black bear, and a variety of smaller animals—lynx, coyote, badger, bobcat, marmot, porcupine—roam the untamed wilderness.

"Mount Lassen," or Lassen Peak as it is correctly called, gave the name to the national park. The peak was named for Peter Lassen, a native of Copenhagen, Denmark. A blacksmith by trade, he migrated to America in 1829. Of a roving nature, he moved to Missouri, and later to California.

For a time he worked for General Sutter, on whose land gold was later discovered. In 1843 he obtained a grant of nearly 5,000 acres not far from the present park. Sixteen years later, while prospecting in Nevada, he was shot by Indians. The park was established in 1916.

NOTE: Lassen Volcanic National Park may be located on the Society's map of the Southwestern United States.

OFFICIAL PHOTOGRAPH, U. S. ARMY AIR SERVICE

THE SUMMIT OF LASSEN PEAK SHOWS THE NEW CRATER (left), FORMED IN 1914, AND THE OLD CRATER (center) OF THE ONLY RECENTLY ACTIVE VOLCANO IN THE UNITED STATES

Indian Princes Rule Fabulous Realms

AS Britain wrestles with the problems of India's independence, the New Delhi meeting of princes of the Indian (or native) States focused interest on the fabulous land of maharajas, tiger hunts, elephant processions (illustration, page 12), and dazzling jewel-set temples.

There are two main divisions in India. Surrounded by and intermingled with the British provinces are 562 states ruled by Indian princes. Their combined area amounts to more than two-fifths of the whole country. Their population is nearly 100,000,000—an estimated quarter of the inhabitants of this densely settled subcontinent.

A Moslem May Rule Hindus, and Vice Versa

The Indian States vary in size, wealth, and culture. The rulers, however, all have an abundance of titles—Raja, Maharaja, Nawab, Gaekwar, Wali, and Nizam, along with plain Colonel and Flight Lieutenant.

The smallest domains have less territory than a medium-sized cattle ranch in the United States. The words Nalia, Virampura, and Varnoli Nani conjure up visions of fantastic realms—or an imagination run wild. In reality, they are names of tiny states extending over one square mile.

Generally listed as largest—and certainly richest—is Hyderabad. This centrally located state is twice the size of Ohio, with an area of 82,698 square miles. Most of its 17,000,000 people are Hindus, although the ruling prince, known as the Nizam, is a Moslem.

This land is one of magnificance and squalor. The Nizam's gorgeous palaces, resplendent costumes, and the glittering pageantry of a durbar (an elaborate state reception), or of a carefully planned tiger hunt, are set against the near-slavery of poverty-stricken subjects. The state maintains perhaps the most modern hospital in south India, while in some of the villages doctors and nurses struggle against almost hopeless odds in hospitals without electricity or running water.

At India's northern tip the mountainous state of Jammu and Kashmir points like an arrow into the line dividing Tibet from China's Sinkiang Province. As much of Jammu and Kashmir is virtually uninhabited wilderness, and its frontier bordering Sinkiang is called "undefined," it has been impossible to estimate the area accurately. In contrast to Hyderabad, largely Moslem Jammu and Kashmir is ruled by a Hindu.

Electric Lights Outline Mysore's Palace

States of moderate size are the scenes of splendor equalling that of the leading principalities. Mysore, not half the size of Hyderabad, rivals that state in the grandeur of its court. The maharaja has modern ideas. His palace, somewhat resembling an intensified Coney Island, is outlined by 130,000 electric light bulbs. Water for irrigation and power is supplied by a lake of 50 square miles formed by a huge dam. For thousands of years Mysore has been India's chief source of gold. Deposits near Bangalore are nearly as rich as those of South Africa's Rand. Mining, and the manufacture of silk fabrics, chemicals, and steel provide a living for many of the state's 7,000,000 people.

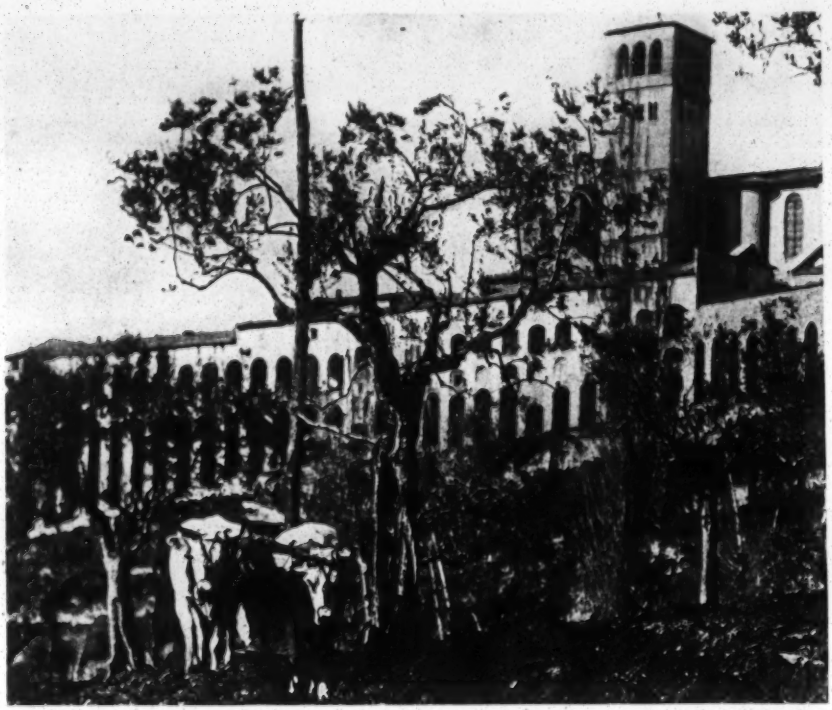
Among the princes are scholars, as well as sportsmen who own stables

grow larger—and faster—they may be 70 feet apart.

It usually takes five or six years to produce a paying crop from a new orchard. Olive groves, to be commercially profitable, generally require irrigation.

November is the chief harvest month. The olives are graded by sizing machines to a sixteenth of an inch and less. Because Americans prefer large olives, the smallest sizes are pressed for oil. This is used in salads and cooking, soap making, and for other industrial purposes. Fifteen to forty per cent of the pulp is oil. There are more than 30 varieties of olives, some of which are cultivated solely for oil.

Olives are eaten both ripe and green, but in either case they must be pickled to remove the bitter, acrid taste. They are hand-picked, and it is important that it be done at exactly the right time. To be pickled green, olives must be harvested when not quite full grown, and before their color has changed. Ripe olives must be as nearly black as possible. If they are picked too soon the color may fade to yellow or red in the pickling process. If they are not picked soon enough, they become too soft. Dried olives are eaten in some Mediterranean countries, but this style is little known in the United States.



M. K. PENRICE

AN OX-DRAWN PLOW FURROWS THE SOIL OF AN ANCIENT ASSISI OLIVE GROVE

On the hill slopes below the 13th century church of the Franciscan convent at Assisi (earliest Gothic church in Italy), a grove of gnarled old olive trees is cultivated by methods more ancient than the church itself. Olives, which need well-drained soil such as this hill provides, take 25 or 30 years to mature, and live to a great age. Some are known to have reached the 1,000-year mark.

of race horses, magnificent palaces and jewels. One is said to own over 200 automobiles. Many have private trains and airplanes. Some princes rule in ancient feudal fashion; others with paternal progressiveness.

When a princess of Bikaner married a Udaipur prince, the ceremonies combined features of Arabian nights fantasy with incidents which might have come straight out of Superman or Terry. Visiting Maharajas came by airplane; the groom rode on a sumptuously caparisoned elephant; the bride, in a sedan chair, hidden from all eyes; dancers and fireworks entertained the guests, and three "days of feasting and merrymaking" ended with a banquet at which 300 guests dined from dishes of solid gold.

The state of Jodhpur gave its name to the style of riding breeches which originated there. The ruler of Baroda, known as the Gaekwar, whose favorite sports are cricket and kite flying, rides on state occasions in a gold and silver coach drawn by white bullocks.

Under treaties with Britain, the Indian States have been semi-independent. British control—and protection—has extended to foreign affairs and, generally, to currency, posts, and customs. Maharajas have prime ministers, armies, police, and courts. Only occasionally has the British government stepped in, through its local representative, to remove, or restrict, a ruler who was believed to have violated a treaty.

NOTE: States ruled by princes are shown on the Society's map of India and Burma. See also, "India—Yesterday, Today, and Tomorrow," in the *National Geographic Magazine*, October, 1943*; "Life with an Indian Prince," February, 1942; and "In the Realms of the Maharajas," December, 1940. And in the GEOGRAPHIC SCHOOL BULLETINS, January 20, 1947, see "India's Travancore Has Atomic Material."

JOHN AND FRANK CRAIGHEAD

BLANKETED IN SHINING SILVER AND RAINBOW HUES, ROYAL ELEPHANTS PARADE PAST THE PALACE WHEN A PRINCESS OF TRIPURA MARRIES A PRINCE OF BHAVNAGAR